

THE COUNCIL FOR TOBACCO RESEARCH-U.S.A., INC.

September 27, 1974

To: W. U. Gardner, Scientific Advisory Board

From: J. H. Kreisher

Subject: Subfractionation of Biologically Active Smoke Condensate Fractions

During the past year the crude fractionation of smoke condensates and crude condensates alone have shown significant differences in the following areas:

1. AHH induction
2. Mutagenesis
3. In vitro transformation
4. Subcutaneous in vivo co-carcinogenesis

Requests have been received to provide subfractionated or fractionated material via column chromatography methods (to avoid oxidation artefacts). Since no methods are available for this fractionation procedures a "best effort" program would be the only possible approach. Staff has requested an estimate, based on knowledge of correct technology and projected costs from Oak Ridge National Laboratory to devise an appropriate subfractionation schematic and proceed to provide fractions of defined constituents which would be tested for biological significance in the currently available test systems.

This is a complicated undertaking, requiring sophisticated analytical and column fractionation methodology far in excess of any efforts to date.

If such studies were to be undertaken an estimated \$150-175,000 per annum would be required to undertake these studies during the next year.

J.H.K.

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